

CLAIMS:

What is claimed is:

1. A voice command system comprising:

5 a user communication interface for communicating with users via a telecommunications network;

a processor;

10 an application-processing module executable by the processor to process voice command applications, the voice command applications defining allowed grammars and application logic;

15 a voice-processing module executable by the processor to recognize grammars in speech signals received from a user via the user communication interface; and

aliasing-logic executable by the processor, upon recognition of an alias grammar in a speech signal received from the user, to convert the alias grammar to an actual grammar, and to recognize the actual grammar as an allowed grammar defined by a voice command application.

2. The voice command system of claim 1, wherein the aliasing-logic uses a predefined set of correlations between alias grammars and actual grammars to convert between an alias grammar and an actual grammar.

20 3. The voice command system of claim 2, wherein the processor uses at least a subset of the predefined set of correlations regardless of the user who is communicating with the voice command system and substantially regardless of which voice command application the processor is processing.

4. The voice command system of claim 1, wherein the aliasing-logic comprises user profile data that indicates, respectively for each of a plurality of users, correlations between alias grammars and actual grammars.

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5. The voice command system of claim 4, wherein:

the user profile data correlates a given actual grammar with a first alias grammar for a first user; and

the user profile data correlates the given actual grammar with a second alias grammar for a second user.

6. The voice command system of claim 4, further comprising:

a user profile store containing the user profile data;

personalization-logic executable by the processor for retrieving from the user profile store the correlations between alias grammars and actual grammars for the user.

7. The voice command system of claim 6, wherein the personalization-logic is executable by the processor to retrieve the correlations during a voice command session with the user.

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8. The voice command system of claim 7, wherein the personalization-logic is executable by the processor to retrieve the correlations at the initiation of the voice command session with the user.

9. The voice command system of claim 4, wherein the processor executes the aliasing logic substantially regardless of which voice command application the processor is currently processing.

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10. The voice command system of claim 1, further comprising a memory, wherein the user profile data for a given user is stored in memory in the platform during a voice command session with the given user.

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11. The voice command system of claim 1, further comprising provisioning-logic for receiving a set of user-defined correlations between alias grammars and actual grammars.

12. The voice command system of claim 11, wherein the provisioning-logic comprises a web interface accessible by a user via a computer network.

13. The voice command system of claim 1, wherein the telecommunications network comprises a wireless communications link.

14. A method of responding to a first grammar spoken by a user to a voice command platform, the method comprising:

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recognizing the first grammar in a speech signal received from the user;
converting the first grammar into a second grammar; and
treating the second grammar as having been spoken by the user.

15. The method of claim 14, wherein converting the first grammar into the second

grammar comprises:

referring to a predefined alias-grammar list to determine that the second grammar

5 correlates with first grammar; and

substituting the second grammar for the first grammar.

16. The method of claim 15, wherein the platform includes logic defining the

predefined alias-grammar list, the method further comprising:

10 referring to the predefined alias-grammar list regardless of which user spoke the first

grammar.

17. The method of claim 15, wherein the alias-grammar list establishes alias-grammar

correlations specific to the user, the method further comprising:

15 retrieving the alias-grammar list from a user profile store during a voice command session

with the user.

20. The method of claim 14, wherein the voice command platform includes a

processor that executes voice command applications, a given voice command application

defining grammars that the platform should recognize when spoken by a user and associating

application-logic with the grammars; and wherein treating the second grammar as having been

spoken by the user comprises:

making a determination that the second grammar is a given one of the grammars defined by the given voice command application; and

in response to the determination, executing a set of application-logic that the given voice command application associates with the given grammar.

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19. The method of claim 14, wherein the first grammar is spoken to the voice command platform via a telecommunications network comprising a wireless communications link.

10 20. A method of responding to a first grammar spoken by a user to a voice command platform, the user having accessed the voice command platform by placing a telephone call to the voice command platform, the method comprising:

recognizing the first grammar in a speech signal received from the user;

15 using a predefined alias-grammar set to determine that a second grammar correlates with first grammar;

substituting the second grammar for the first grammar;

making a determination that the second grammar is defined as an acceptable grammar by a voice command application being executed by the voice command platform; and

20 in response to the determination, executing a set of application-logic that the voice command application associates with the acceptable grammar.

21. The method of claim 20, wherein the user has accessed the voice command platform by placing a cellular telephone call to the voice command platform.

22. A voice command platform comprising:

a user profile store that indicates, for each of a plurality of users, a set of personal grammars for the user, wherein the voice command platform recognizes the personal grammars during a voice command session with the user.

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23. The voice command platform of claim 22, wherein each personal grammar is an alias for a respective other grammar, and wherein the voice command platform translates between the personal grammar and the respective other grammar.

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24. The voice command platform of claim 22, wherein voice command platform is programmed to recognize the personal grammars across a plurality of voice command applications executed by the platform.

25. A voice command platform comprising:

a user communication interface for communicating with users via a telecommunications network;

20 a processor;

an application-processing module executable by the processor to process voice command applications, the voice command applications having navigation points, and the voice command applications defining user-prompts, allowed grammars and application-logic;

a user profile store including bookmark-data respectively for each of a plurality of users, wherein a given set of bookmark-data for a given user includes a number of bookmark-names each pointing to a respective, corresponding navigation point; and

5 speech-recognition logic executable by the processor for recognizing a bookmark-name in a speech signal received from the given user via the user communication interface;

wherein the processor uses the given set of bookmark-data to identify the navigation point corresponding to the recognized bookmark-name, and the processor then loads a processes a voice command application that has that navigation point.

10 26. The voice command platform of claim 25, wherein each of a plurality of the voice command applications are VXML applications, and each of a plurality of the navigation points are Universal Resource Indicators.

15 27. The voice command platform of claim 25, wherein the telecommunications network comprises the public switched telephone network.

28. The voice command platform of claim 25, wherein the telecommunications network comprises a wireless communications link.

20 29. The voice command platform of claim 25, wherein the processor loads a voice command application from the navigation point corresponding to the recognized bookmark-name and then processes the voice command application.

30. The voice command platform of claim 25, further comprising:
bookmark-saving logic executable by the processor to save a bookmark-name and
corresponding navigation point as bookmark-data for a user.

5 31. The voice command platform of claim 30, wherein the bookmark-saving logic is
executable by the processor in response to a bookmark save command that a user speaks to the
voice command platform.

32. The voice command platform of claim 25, wherein:

10 the speech-recognition logic is executable by the processor to recognize a bookmark-
recall command and a bookmark-name in the speech signal received from the given user via the
user communication interface; and

15 in response to the bookmark recall command, the processor uses the given set of
bookmark-data to identify the navigation point corresponding to the recognized bookmark-name
and the processor then loads and executes a voice command application from that navigation
point.

33. A bookmark-management method comprising:

20 storing, respectively for each of a plurality of users, bookmark-data indicating bookmark-

names and corresponding pointers to navigation points of voice command applications;

receiving from a user, via a telecommunications network, a bookmark-save voice
command, and responsively saving as bookmark-data for the user a pointer to a designated
navigation point; and

receiving from a user, via a telecommunications network, a bookmark-recall command designating a given bookmark-name;

using the bookmark-data to identify a given navigation point corresponding to the given bookmark-name; and

executing a voice command application that is located at the given navigation point.

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34. The bookmark-management method of claim 33, executed by a processor on a voice command platform.

35. The bookmark-management method of claim 33, wherein each of a plurality of the voice command applications are VXML applications, and each of a plurality of the navigation points are Universal Resource Indicators.

36. A voice command platform accessible by users over a telecommunications network, the voice command platform comprising a user profile store that indicates, respectively for each of a plurality of users, a set of bookmarks for the user, each bookmark pointing to a navigation point that is accessible by the platform during a voice command session with the user.

37. The voice command platform of claim 36, further comprising:
logic executable by the platform to manage the set of bookmarks for the user.

38. A voice command platform comprising:

10 a user communication interface for communicating with users via a telecommunications

15 network;

20 a processor;

25 an application-processing module executable by the processor to process voice command
5 applications, the voice command applications defining voice prompts, allowed grammars and
application-logic;

30 a voice-processing module executable by the processor to recognize the allowed
grammars in speech signals received from users via the user communication interface; and

35 10 global-grammar logic executable by the processor to recognize a set of predefined
grammars in speech signals received from users via the user communication interface, regardless
of which voice command application is currently being executed by the processor.

40 15 39. The voice command platform of claim 38, wherein:

45 the global-grammar logic defines logic associated respectively with each predefined
grammar; and

50 in response to recognition of a given predefined grammar in a speech signal received
from a user, the processor executes the logic associated with the given predefined grammar.

55 20 40. The voice command platform of claim 38, wherein the telecommunications

60 network comprises a wireless communication link.

65 41. A voice command platform comprising:

70 a user communication interface;

a processor;

a VXML browser executable by the processor for processing VXML applications, and for communicating speech signals with users via the user communication interface, the VXML applications defining allowed grammars;

5 global grammar-logic defining a set of global-grammars that the VXML browser will recognize in speech signals from users, regardless of which VXML application is currently being processed by the VXML browser;

10 wherein, when the platform receives a speech signal from a user, the processor analyzes the speech signal to determine whether the speech signal represents one of the allowed grammars defined by the application and further whether the speech signal represents one of the global-grammars defined by the global grammar logic.

15 42. The voice command platform of claim 41, wherein the global-grammar logic is set forth in a root VXML application that the processor references while processing another VXML application.

20 43. The voice command platform of claim 42, wherein the processor loads and executes the root VXML application upon initiation of a voice command session with a user.

44. The voice command platform of claim 41, wherein:

a VXML application executed by the platform comprises (i) a root document that defines allowance of a given grammar for the VXML application and (ii) at least one subsidiary

document that references the root document and, by reference to the root document, assumes allowance of the given grammar; and

when the platform receives a speech signal from a user while the processor is processing the at least one subsidiary document, the processor analyzes the speech signal to determine (i) 5 whether the speech signal represents the given grammar defined by the root document and (ii) whether the speech signal represents one of the global-grammars defined by the global grammar logic.

45. A method of user-control over a voice command platform, the method

10 comprising:

receiving a speech signal from a user while processing a voice command application;
recognizing in the speech signal a grammar that is not defined by the voice command application; and
executing a set of logic associated with the grammar.